ITIL, Service Management and Automated Documentation Systems

How can MIDAS help to Automate the Generation of Documentation

Information Technology Infrastructure Library (ITIL)
The Information Technology Infrastructure Library (ITIL) is a framework of best practices for delivering IT services. ITIL is based on the need to supply high-quality services with an emphasis on customer relationships. The IT organization will have to fulfill the agreements with the customer, which means maintaining good relationships with all parties involved. Thus ITIL can also be seen as a IT quality management framework similar to ISO 9000 or Six Sigma, as such it emphasizes the importance of documentation. Documentation and information transparency are essential factors when developing and operating IT infrastructures and services. For example, when updating business applications, if the latest documentation is not available where it is needed, longer downtimes are likely to occur.

Filing documents in binders or the wide spread “personal information management approach” is not a viable solution for the future. A documentation system fundamentally must be up-to-date and available at any time for breakdowns, maintenance or system updates.

One of the most important points in IT services is making the structure of the digital «nervous system», which consists of software, hardware, network services and applications, transparent, manageable and controllable. To achieve this, documentation and visualization of all IT services, or in fact, the entire IT infrastructure, is necessary.

As ITIL processes need to use information, the benefit is improved processes across the whole of IT service delivery and support, providing the basis for strategic IT management.

In addition ITIL and Service Management is about managing the knowledge in IT. Typically the knowledge is scattered over the whole IT organization. Especially in large organization this can directly impact the total efficiency and effectiveness of the organization. Without documentation, all the knowledge remains in people's heads. How can that information be transferred to "other heads"?
It needs to be written down. The trouble is, who has the time to do it? That's why automated documentation systems like MIDAS are the only way it will ever get done and stay current.

What does the lack of documentation or poor transparency of information mean to IT monitoring? IT monitoring is concerned with the surveillance of IT assets such as servers, applications and services. The goal is to guarantee a high quality of services within IT. IT monitoring solutions can quickly become very complex and this is a problem not limited to large organizations.

There is almost at least a dotted line between any important configuration item (CI) and the IT monitoring configuration. Changing CIs may or may not result in changes to the IT monitoring configuration.

Without documentation and transparency of information requests can neither be planned, executed nor checked efficiently. Due to the high rate of changes in IT, the monitoring configuration is highly dynamic. As there are many contributors to the IT monitoring configuration the saying “too many cooks spoil the broth” is more than true in this realm too. Due to the dynamics, complexity and distributed access patterns documentation in IT monitoring is simply mandatory. The major problem is that the manual generation of documentation is both costly and error prone. In addition the documentation is difficult to be kept up-to-date and since many IT professionals prefer to work on functionality rather than to document it, it is often simply not available. But what are the consequences?

- Since the IT monitoring configuration may not reflect recent changes in the IT infrastructure it might not be possible to guarantee the appropriate quality service in IT. Service or application outages may not be detected and critical problems may not be forwarded to the trouble ticketing
- An inaccurate IT monitoring configuration can cause too many events to be processed. IT management and monitoring in particular can become very costly. In addition problems with the consistency of the IT management configuration can cause a lot of manual activities such as interactive reconciliation task.
- Many resources in IT such as application owners or help desk staff need information about how specific components are monitored, or if any monitoring is done at all. The lack of transparency affects the efficiency of the whole IT organization. Without the appropriate tools the staff responsible for IT monitoring get overwhelmed by annoying questions and requests.
This are only a few threats of not providing the appropriate documentation of the IT monitoring. But depending on the size and type of the IT infrastructure and organization there even more dangerous consequences.

Automating the Generation of Documentation with MIDAS

**THE SOLUTION**

The solution to nearly all of the problems mentioned above can be found in MIDAS from blue elephant systems. The next section provides a short description of MIDAS.

**MIDAS FOR OMU**

MIDAS is a modular solution which enhances IT management tools by providing more transparency, documentation and better process support. MIDAS for OMU currently has two modules and more are on the way. MIDAS is a web based application with adapters to several IT management tools. Currently adapters are available for HP OMU, HP OMW (Operations Manager for Windows) and HP NNM (Network Node Manager)

**MIDAS Documentor**

MIDAS Documentor is an entry level solution which provides complete insight into the OMU management configuration. The main functions are:

- Browse
- Search
- View related information
- Compare policies
- Generate documentation (HTML, PDF, RTF and EXCEL)

MIDAS Documentor is ideal for those organizations whose first priority is understanding how their systems are managed or who have internal or external requirements to document their monitoring solutions. MIDAS Documentor is READ ONLY and all changes to the configuration must still be made in the OMU native GUI. MIDAS Documentor is also available for OMW and NNM.
**MIDAS Configurator**

MIDAS Configurator for OMU includes the complete MIDAS Documentor. In addition to the functions listed for the Documentor, the Configurator also provides:

- Enhanced User Management with multiple administrators and granular access rights (READ, CREATE, MODIFY, DELETE, ASSIGN, EXECUTE) to individual objects or groups of objects (Policy, Node, Message Groups, etc.)
- Complete edit functions
- Version Control for all OVO configuration items
- Shopping cart for operations on multiple diverse items

**MIDAS Administrator**

MIDAS Administrator for OMU provides enhanced support for OMU release management and move-to-production process. MIDAS Administrator introduces the notion of a package. Packages are used to collect items together which are used to monitor an application or service. Packages are a powerful concept to align OMU management configuration to the business. The main functions are:

- Define packages of OMU Configuration for applications or business services
- Assign right to packages
- View, browse packages
- Create a release
- Upload / Download / Transfer packages or releases
- Schedule and monitor distribution to managed servers
- Verify desired state of production OMU servers
- Verify desired state of managed nodes

MIDAS Administrator requires MIDAS Configurator. They are seamlessly integrated into the same web application.
Documentation and Transparency

Documentation is something everybody wants to have, but only few have it. OMU provides no facilities to document policies, nodes or anything else. Documentation, of any type, is not provided by OMU. MIDAS lets users generate up-to-date documentation of almost any object or group of objects. Documents can be in various formats including PDF and Excel.

Creating documentation for OMU is typically a manual process. Creating a document that describes all of the monitoring instrumentation for a large managed node could easily take a half-day, maybe more. Once that document is created there is no guarantee that it will be maintained and updated.

To create and maintain documentation for a large OMU environment with a moderate rate of change can be nearly a full time job without the appropriate tools.

Process oriented IT monitoring including

Release Management

The MIDAS release management is based on packages. It is possible to assign access rights to a package or portions of a package. For example somebody could have “READ” rights to an entire package but only “MODIFY” rights to certain policies. Other functions which can be done on a package include:

- Compare definitions
- Browse
- Check-in (create Release)
- Download
- Transfer to one or more management servers
- It is also possible to compare 2 releases of a package.
The MIDAS configuration package provides a high degree of transparency into the monitoring of an application of business service. This transparency is critical to insure that monitoring for applications is properly engineered, assembled and deployed with a minimum of manual steps.

An added benefit to the MIDAS configuration packages is the ability of an application owner to view or manage how his application is managed. This is a true step towards IT-Business alignment, even if at a relatively low level.

**Version Control and Change Management**

There is no facility in OMU to maintain previous versions of a policy. Manually exporting policies and checking them into a version control system is awkward. There is no link from within the OMU administration user interface to an external version control system. For all practical purposes, it is impossible to maintain versions of policies or other OMU configuration. Roll-back to previous versions of monitoring are not possible. MIDAS provides a seamless interface to CVS, an open source version control system. All objects can be directly checked-in or checked-out from the MIDAS GUI. Comparisons between current versions and past versions is easily done using the policy comparison function.

**Auditing**

Auditing has only minimal value in OMU since most of the critical functions can only be performed using the opc_adm user which is shared among multiple administrators. MIDAS Configurator has a complete user model which allows useful auditing of all work done in OMU.

**Conclusion**

Applications such as HP Operations Management (OM U) are mainly used to keep the IT infrastructure under control. ITIL best practices also require these tools are under control in terms of transparency, version control, release management and auditing. If this not the case this flaw can have direct impact on the quality and cost of IT services.